# IPC-HDBW1431R-ZS-S4

## 4MP Entry IR Vari-focal Dome Netwok Camera



- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440) @25/30 fps, and supports max. 4MP (2688 × 1520) @20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max. IR distance: 40 m
- ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- Image flip, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 GB SD card
- 12V DC/PoE power support
- IP67, IK10 protection



## System Overview

With features of simple installation, easy operation, and high performance-cost ratio,  Entry Series camera is applicable to small and medium-sized scenes, such as homes/residences, small-sized retail stores, and other small and medium-sized enterprises.

## Functions

### Smart  (H.265+ & H.264+)

With advanced scene-adaptive rate control algorithm,  smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

### Motion Detection

When moving objects appear in the monitoring image,  Motion Detection (General) technology triggers alarm or records.

### Wide Dynamic Range (WDR)

With advanced Wide Dynamic Range (WDR) technology,  network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

### Smart IR

 Smart IR technology can display image in the environment of low illuminance or completely dark environment. According to the distance of the targets, the camera adjusts IR LEDs intensity automatically to display the details of the moving target.

### Protection (IP67, IK10, wide voltage)

IP67:  The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 m (Impact energy is 20J).

Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

# IPC-HDBW1431R-ZS-S4

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/3 "4Megapixel progressive CMOS |
| Effective Pixels | 2688 (H) ×1520 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100000 s |
| Min. Illumination | 0.03 Lux @ F1.7 |
| IR Distance | 40 m (164.0 ft) |
| IR On/Off Control | Auto/Manual |
| IR LEDs Number | 2 |
| Pan/Tilt/Rotation Range | Horizontal: 0°–355°<br>Vertical: 0°–75°<br>Rotation: 0°–355° |

### Lens

| | |
|---|---|
| Lens Type | Motorized vari-focal |
| Mount Type | φ14 |
| Focal Length | 2.8 mm–12 mm |
| Max. Aperture | F1.7 |
| Field of View | Horizontal: 98°–31°<br>Vertical: 55°–18°<br>Diagonal: 116°–36° |
| Iris Type | Fixed aperture |
| Close Focus Distance | 0.8 m  (2.6 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | W | 66.0 m (183.7 ft) | 26.4 m (73.5 ft) | 13.2 m (36.7 ft) | 6.6 m (18.4 ft) |
| | T | 200.0 m (656.2 ft) | 80.0 m (262.5 ft) | 40.0m (131.2 ft) | 20.0 m (65.6 ft) |

### Video

| | |
|---|---|
| Video Compression | H.265; H.264; H.264B; MJPEG |
| Smart Codec | Yes |
| Video Frame Rate | Main Stream:<br>2688 × 1520 (1 fps–20 fps)<br>2560 × 1440 (1 fps–25/30 fps)<br>Sub Stream:<br>704 × 576 (1 fps–20/25 fps)<br>704 × 480 (1 fps–20/30 fps) |
| Stream Capability | 2 streams |
| Resolution | 2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 ×240) |

| | |
|---|---|
| Bit Rate Control | CBR; VBR |
| Video Bit Rate | H.264: 32 Kbps–6144 Kbps<br>H.265: 12 Kbps–6144 Kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| White Balance | Auto/natural/street lamp/outdoor/manual/regional custom |
| Gain Control | Manual/Auto |
| Noise Reduction | 3D DNR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest(RoI) | Yes (4 areas) |
| Smart IR | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution.) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

### Network

| | |
|---|---|
| Network | RJ-45 (10/100 Base-T) |
| Protocol | HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; QoS; UPnP; NTP; RTMP; Multicast; HTTPS; SFTP; 802.1x; ICMP;  IGMP |
| Interoperability | ONVIF (Profile S/Profile G); CGI; Milestone; Genetec; P2P |
| User/Host | 20 |
| Edge Storage | Cloud; FTP; Micro SD card (support max. 256 GB); NAS |
| Browser | IE<br>Chrome<br>Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS; Android |

### Certification

| | |
|---|---|
| Certifications | CE-LVD: EN60950-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B |

### Power

| | |
|---|---|
| Power Supply | 12V DC/POE (802.3af) |
| Power Consumption | < 6.4W |

### Environment

| | |
|---|---|
| Operating Conditions | -30°C to +60°C (-22°F to +140°F)/less than≤95% |
| Strorage Conditions | -40°C to +60°C (-40°F to +140°F) |
| Ingress Protection | IP67; IK10 |

# IPC-HDBW1431R-ZS-S4

## Structure

| | |
|---|---|
| Casing | Metal |
| Dimensions | 88.9 mm × Φ122 mm (3.5" × Φ4.8") |
| Net Weight | 0.46 kg (1.0 lb) |
| Gross Weight | 0.64 kg (1.4 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 4MP Camera | IPC-HDBW1431RP-ZS-S4 | 4MP Entry IR Vari-focal Dome Netwok Camera,PAL |
| | IPC-HDBW1431RN-ZS-S4 | 4MP Entry IR Vari-focal Dome Netwok Camera,NTSC |
| Accessories (optional) | PFA137 | Junction Box |
| | PFA200W | Rain Shade |
| | PFB203W | Wall Mount |
| | PFA152-E | Pole Mount |
| | PFA106 | Mount Adapter |
| | PFB220C | Ceiling Mount |
| | PFB200C | In-ceiling Mount |
| | PFM321D | DC12V1A Power Adapter |
| | LR1002-1ET/1EC | Single-port Long Reach Ethernet over Coax Extender |
| | PFM900-E | Integrated Mount Tester |
| | PFM114 | TLC SD Card |

## Accessories

### Optional:



PFA137
Junction Box

PFA200W
Rain Shade

PFB203W
Wall Mount

PFA152-E
Pole Mount

PFA106
Mount Adapter

PFB220C
Celling Mount

PFB200C
In-Celling Mount

PFM321D
DC12V1A Power Adapter

LR1002-1ET/1EC
Single-port long reach ethernet over coax extender



PFM900-E
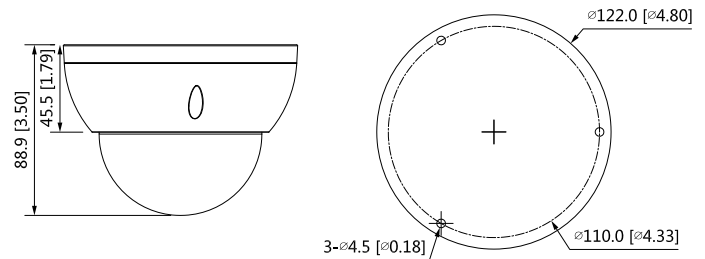Integrated Mount tester

PFM114
TLC SD card

| Junction Mount | Wall Mount | Wall Mount | Pole Mount |
|---|---|---|---|
| PFA137 | PFA137+PFA200W | PFB203W | PFB203W+PFA152-E |

| Ceiling Mount | In-ceiling Mount |
|---|---|
| PFA106+PFB220C | PFB200C |



## Dimensions (mm[inch])



88.9 [3.50]
45.5 [1.79]
∅122.0 [∅4.80]
∅110.0 [∅4.33]
3-∅4.5 [∅0.18]